



Infrastructure, environment, buildings

Mr. Victor Janosik
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Subject:

Request to Terminate Off-Gas Treatment Unit, Shope Landfill, Girard, Pennsylvania

Dear Mr. Janosik:

On behalf of Lord Corporation (Lord), ARCADIS is submitting this request to terminate off-gas treatment operations at the Shope Landfill, Girard, Pennsylvania. An in-situ vapor stripping (ISVS) system and groundwater treatment system are currently operational at the site.

Site History

The Site is an inactive, industrial waste landfill in Girard Township, Erie County, Pennsylvania. From the mid-1950s until 1979, industrial wastes, including solvents, spent adhesives, cutting oils, acids, caustics, paper, wood and rubber wastes were disposed at the Site. At the time the wastes were received, the property was owned by the late Mr. Melvin Shope, an employee of Lord. The wastes originated at Lord's Erie (12th Street) and Saegertown plants.

From 1982 to 1983, remedial activities were conducted at the Site including: re-grading of the waste, installation of an upgradient cut-off wall, installation of a composite cap, and improvements in stormwater management. In September 1983, the site was placed on the National Priorities List (NPL). Since that time, the environmental conditions of the Site have been extensively investigated. Lord has been collecting groundwater quality data from the Site since 1983.

Site remediation was augmented following the completion of a Remedial Investigation/Feasibility Study. These additional active remedies include the ISVS system, which became operational in December 1995, and the groundwater recovery and treatment system, which became operational in June 1996. Off-gas treatment was provided for the ISVS system to minimize volatile organic compound (VOC) air emissions. According to the current Pennsylvania air emission exemption policy dated July 26, 2003, VOC sources that will cause an increase of less than 2.7 tons per year (TPY) are not required to get permit approval.

Performance of ISVS System

The off-gas treatment component of the ISVS system consists of a thermal oxidizer that has been operating since start-up of the ISVS system to treat the mass of VOCs removed during vapor recovery. A layout of the system is provided in Attachment 1.

Part of a bigger picture

*Received
6/8/05 by
V. Janosik, RPM*

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6 June 2005

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Our ref:

OH000933.0001.00001

*A copy of this
(the original) was
given to Patricia
Flores-Brown of
the R3 Air
Protection Division
for review
6/16/05.*

V. Janosik, RPM

ARCADIS

Mr. Victor Janosik
6 June 2005

VOC concentrations have steadily decreased since system start-up, and the total annual VOC emissions have been below the 2.7 TPY state requirements for 2 consecutive years (2003 and 2004). A table presenting air emission analytical data, and a figure illustrating the decreasing trend of VOC concentrations is included in Attachment 2.

When the ISVS system started ten years ago, the fuel to feed the thermal oxidizer was supplied by the VOC air emissions. As VOC emissions have decreased, the thermal oxidizer has been supplemented with fuel (natural gas) to support achieving the required reduction efficiencies. Due to the low VOC concentrations in vapor recovered during current ISVS system operation, natural gas required to operate the oxidizer has increased. Supplemental fuel requirements cost approximately \$30,000 per year. Additionally, the aging off-gas treatment system will need replaced in the near future.

Recommendations

Because analytical data has been below the 2.7 TPY state requirement for two consecutive years, Lord requests U.S. EPA approval to cease off-gas treatment. The ISVS system will continue to be operated according to the remedy agreement in place between Lord and the U.S. EPA. By terminating use of the thermal oxidizer, the ISVS system will be efficient to maintain, and will decrease overall remedy costs. Lord will continue to operate the groundwater recovery and treatment system, and the groundwater monitoring program will continue so that ongoing compliance and plume attenuation can be demonstrated.

Lord and ARCADIS are available to discuss this request with you at your convenience. Please contact Mr. George Kickel of Lord at (814) 868-0924, extension 3393, or our office if you have questions.

Sincerely,

ARCADIS G&M, Inc.

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Project Scientist

National Air Quality Director

Enclosure

Copies:

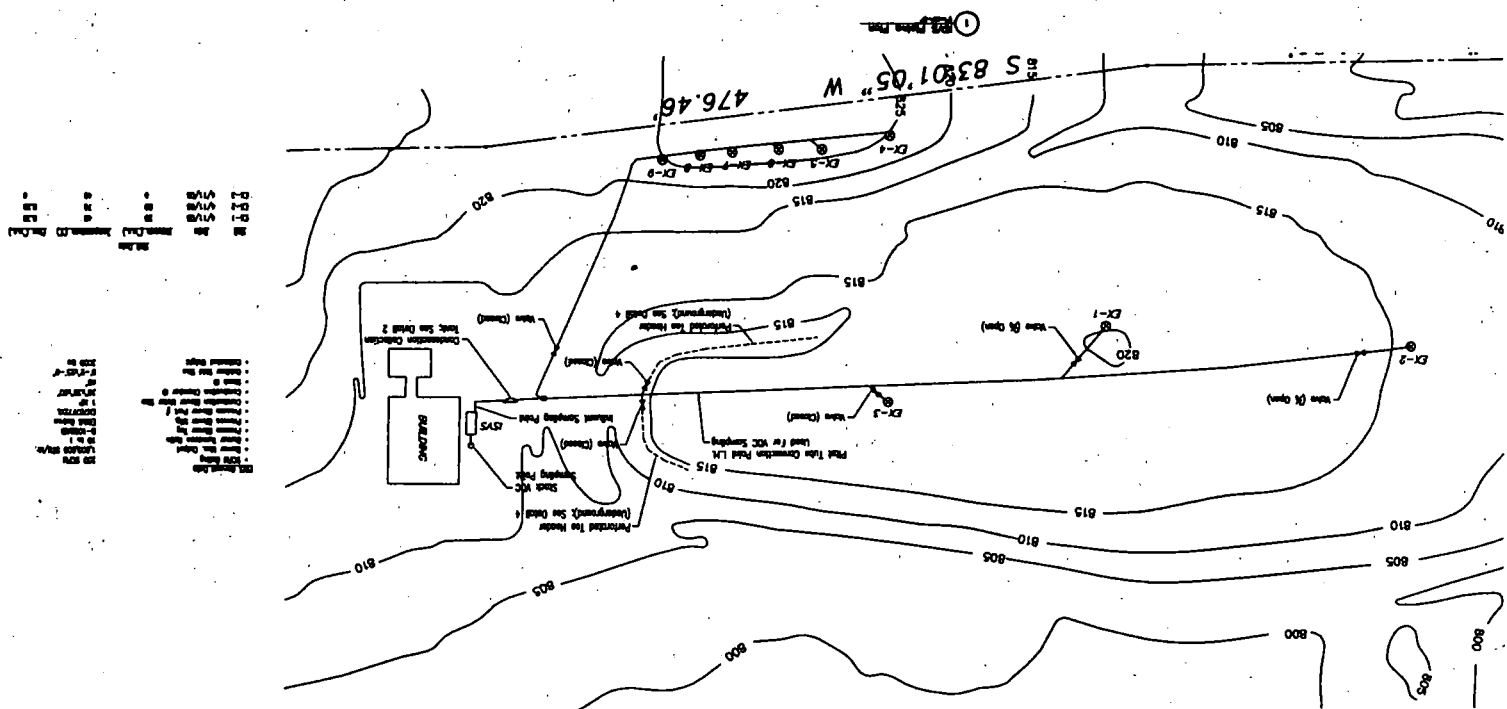
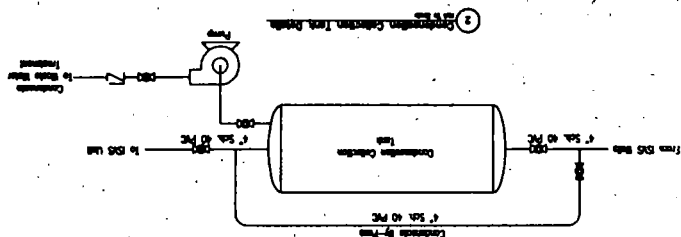
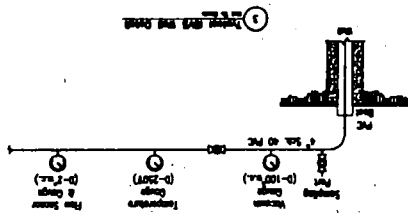
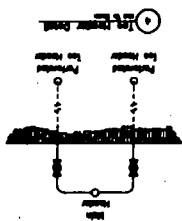
G. Mechtly, PADEP

G. Kickel, Lord Corporation

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Attachment 1



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Attachment 2

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Table 1. Total Yearly Volatile Organic Compound Mass Prior to Thermal Oxidizer Treatment Unit, Shope Landfill, Girard, Pennsylvania.

<u>Year</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
VOC Emissions (TPY)	1.0	6.7	3.5	3.9	3.5	3.2	3.5	2.0	1.4

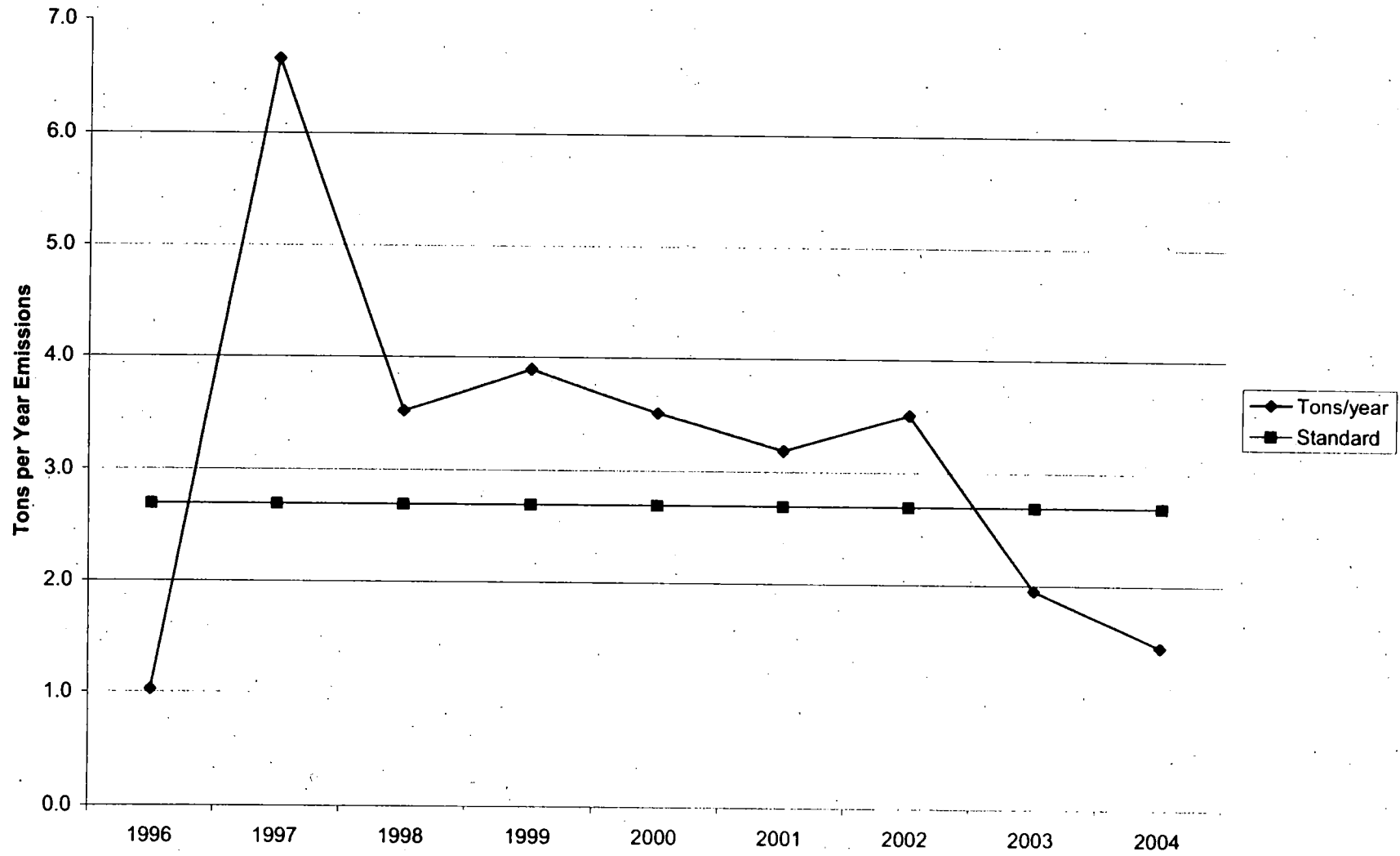
Note:

VOC - Volatile organic compounds.

TPY - Tons per year.

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Shope ISVS Annual Mass Calculation



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